

Patent Claims

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1. Method of transmitting signals, e.g. control signals, request signals, interrogation signals etc. to a node in the form of a controllable unit associated with a device, e.g. a controllable device, measuring means, etc. and wherein said controllable unit may be linked to at least one further node by means of a communication bus, at least one of said nodes comprising radio frequency receiving means, said method comprising the steps of
 - a) transmitting a signal from a controller,
 - b) reception of said signal by at least said node comprising radio frequency receiving means,
 - c) detection of at least part of said signal indicating a destination node, and
 - d) retransmittal of said signal or part of said signal by said node comprising radio frequency receiving means to said destination node via said communication bus.
 - 15 2. Method according to claim 1, characterized in that the method comprises a procedure for determining a timeslot in which said retransmittal is performed by said node comprising radio frequency receiving means.
 - 20 3. Method according to claim 2, characterized in that said procedure for determining a timeslot comprises a random selection of a timeslot.
 4. Method according to claim 2 or 3, characterized in that said signal may be received by at least two nodes comprising radio frequency receiving means and that said retransmittal is performed by the node for which the earliest occurring timeslot has been selected.
 - 25 5. Method according to one or more of claims 1 - 4, characterized in that said at least part of said signal indicating a destination node comprises an identification of the destination node, for example an address.

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6. Method according to one or more of claims 1 - 5, characterized in that said retransmittal of said received signal is performed by means of a wired communication bus.
- 5 7. Method according to one or more of claims 1 - 6, characterized in that said signal is transmitted to said node comprising radio frequency receiving means by means of a wireless remote control.
- 10 8. Method according to one or more of claims 1 - 7, characterized in that the method further comprises transmittal of a response signal from the destination node, said response signal being transmitted via said communication bus and by means of said node having transmitted the signal to the controller having transmitted said signal, e.g. routing the response signal corresponding to the routing of said signal.
- 15 9. System for transmission of signals, e.g. control signals, request signals, interrogation signals etc. to a node in the form of a controllable unit associated with a device, e.g. a controllable device, measuring means, etc. wherein said controllable unit may be linked to at least one further node by means of a communication bus,
- 20 20 wherein at least one of said nodes comprises radio frequency receiving means for reception of signals transmitted from at least one controller comprised in the system and wherein said at least one node comprising radio frequency receiving means for reception of signals have means for retransmitting of a received signal or information comprised herein via said communication bus.
- 25 10. System according to claim 9, characterized in that said system comprises a plurality of said nodes in the form of controllable units, each associated with a device, and that said system comprises one or more communication buses, each defining a subnet in the system and each being linked to at least one of said nodes comprising radio frequency receiving means.

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11. System according to claim 9 or 10, characterized in that said nodes comprises identification means, e.g. means for storing an e.g. address, and means for identifying an identification part of a received signal.
- 5 12. System according to claim 9, 10 or 11, characterized in that said at least one node comprising radio frequency receiving means comprises means for initiating a re-transmittal of a received signal or part hereof, e.g. in case of reception of a signal with an identification part different from the identification of node in question.
- 10 13. System according to one or more of claims 9 - 12, characterized in that said at least one controller comprises remote control means for transmission of said signals to one or more of said nodes comprised in the system.
- 15 14. System according to one or more of claims 9 - 13, characterized in that said communication bus comprises a communication channel operating by means of wired connections.
- 20 15. System according to one or more of claims 9 - 14, characterized in that said at least one of said nodes comprising radio frequency receiving means comprises means for establishing and storing a table comprising identification of destination nodes linked by a communication bus, e.g. comprised in a subnet of the system.
- 25 16. System according to one or more of claims 9 - 15, characterized in that said nodes comprise power supply means, preferably connected to a plurality of said nodes by means of a power supply line.
- 30 17. System according to claim 16, characterized in that said communication bus comprises a communication channel operating by means of said power supply line, e.g. by means of a modulation technique, superimposing technique etc.

18. System according to one or more of claims 9 - 17, characterized in that at least one of said nodes on the subnet comprises control means for performing a general control of simultaneously and/or sequentially performed operations by the devices involved in the system, e.g. in order to prioritise operations in consideration of certain resources such as available power etc, said control means comprising means for keeping account of available resource(s), means for accepting or denying requests from nodes on the subnet, means for aborting current operations of said nodes and/or means for valuating requests and/or current operations in view of a priority value.
19. System according to one or more of claims 9 - 18, characterized in that said radio frequency receiving means may be designed as transceiver means, e.g. in order to respond to received signals.